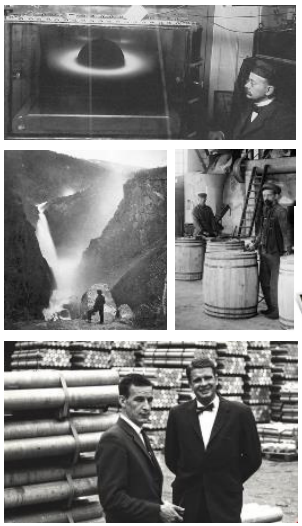
Global presence in aluminium, global energy agenda

President and CEO Svein Richard Brandtzæg

Sparebank 1 Markets 2018 Energy Conference

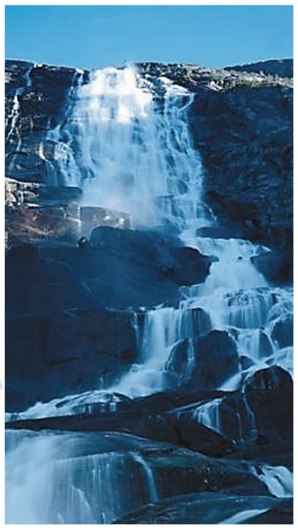
112 years young, 112 years strong

More than 110 years of industrial development and responsibility

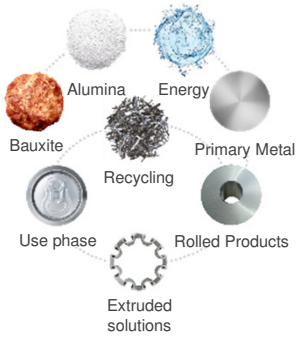


Aluminium – metal of the future

Hydropower – infinitely recyclable «green» energy



Engaged in the entire value chain – R&D, innovation and tailormade solutions



35,000 employees at 150 locations in more than 40 countries

Involved and engaged

wbcsd

THE GLOBAL COMPACT

MEMBER OF Dow Jones Sustainability Indices In Collaboration with RobecoSAM

CDP

GRI

ICMM International Council on Mining & Metals

EITI Extractive Industries Transparency Initiative

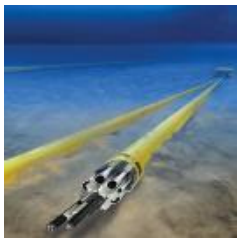
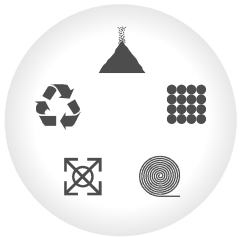
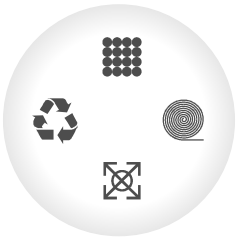
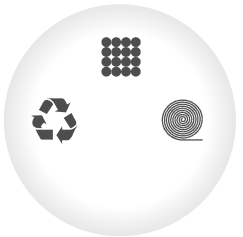
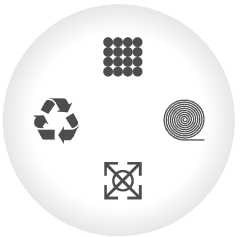
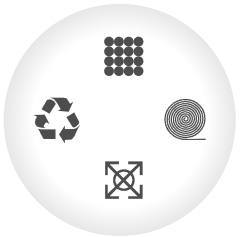
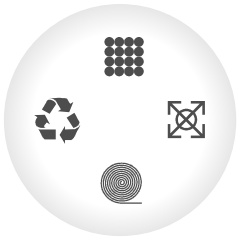
asi

HYDRO

Hydro. 360° aluminium

We are integrated across the entire value chain and across all market segments

- Bauxite
- Alumina
- Energy
- Primary Metal
- Rolled Products
- Extrusion
- Recycling

Transport & automotive	Building & construction	Packaging	Electronics & electrical	Machinery & equipment	Consumer durables
					
					

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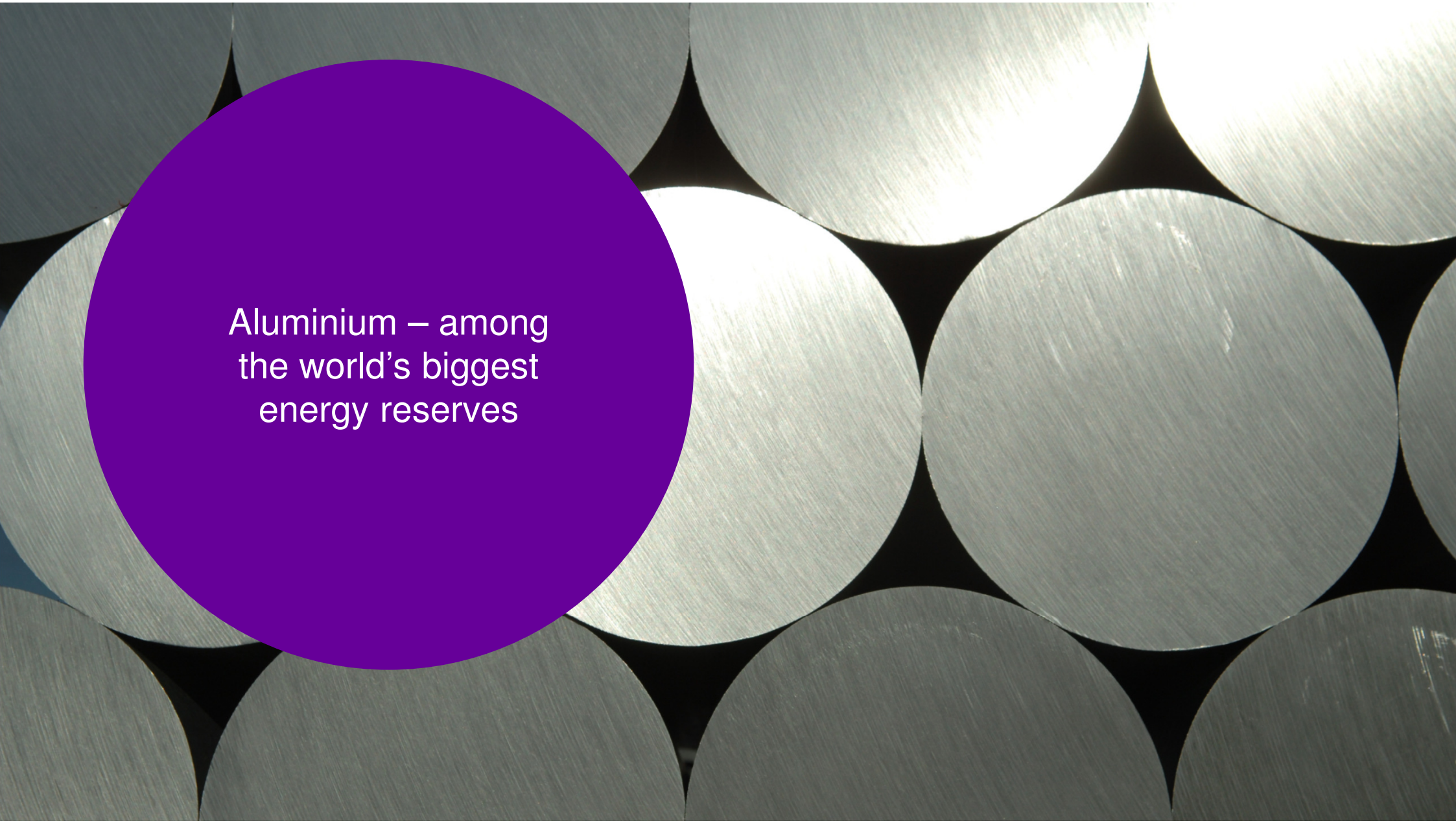
Aluminium – among
the world’s biggest
energy reserves

The world of aluminium is greatly influenced by key long-term trends

The key dilemma are affecting us all: producers, consumers, regulators, end-users

Increased resource efficiency or accelerated resource depletion?

Part of the solution to climate change or part of the problem?

Riding the wave of technological development or halted by disruption?

Realizing the low-carbon future or continued fossil-based economy?

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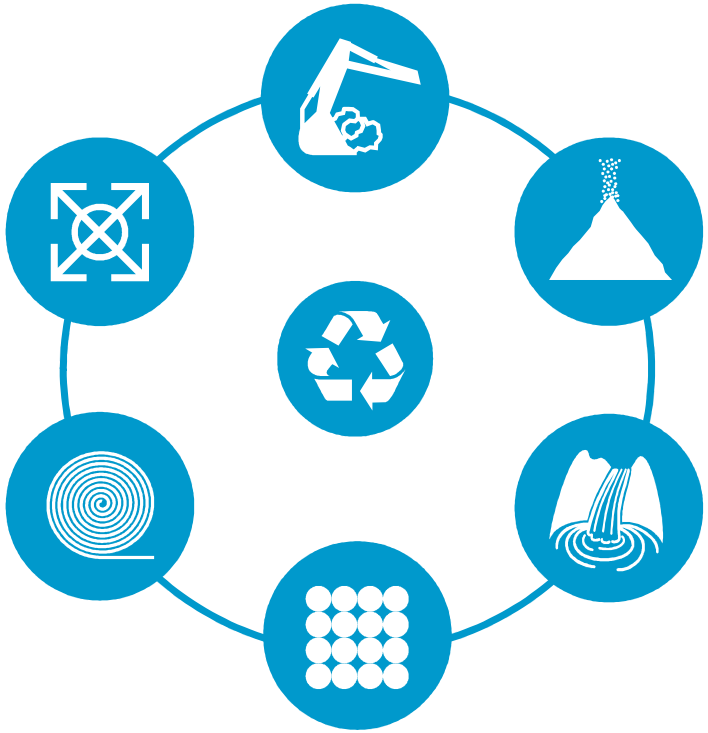
Aluminium is energy in solid state



~ 60 million mt

Global primary metal production
reached an annual rate of more than
60 million tonnes last year

~ 50 %

Energy represents around half of the
cash cost from raw materials
to finished aluminium products

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Demand driven both by substitution and expansion into new markets

Aluminium is the fastest-growing base metal in the world

Marine / Offshore applications

Zero-emission electrical car ferries in 100% aluminium for light-weighting

B&C, e.g. Supertall buildings

Transportation, truck & trailer applications

Aluminium in solar panels

Industrial applications, e.g. furnitures

Middle and high voltage cables, wire and cables for electrical applications

Automotive, stong drive towards EV

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Aluminium infinitely recyclable, making it a giant energy storage bank

One of the world's largest energy reserves, increasingly utilized through urban mining and recycling

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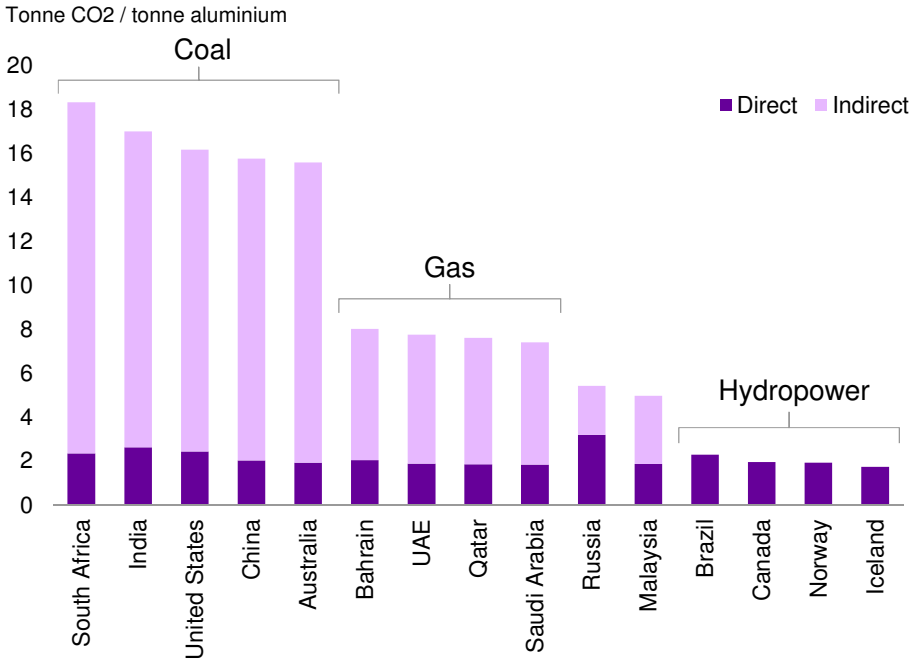
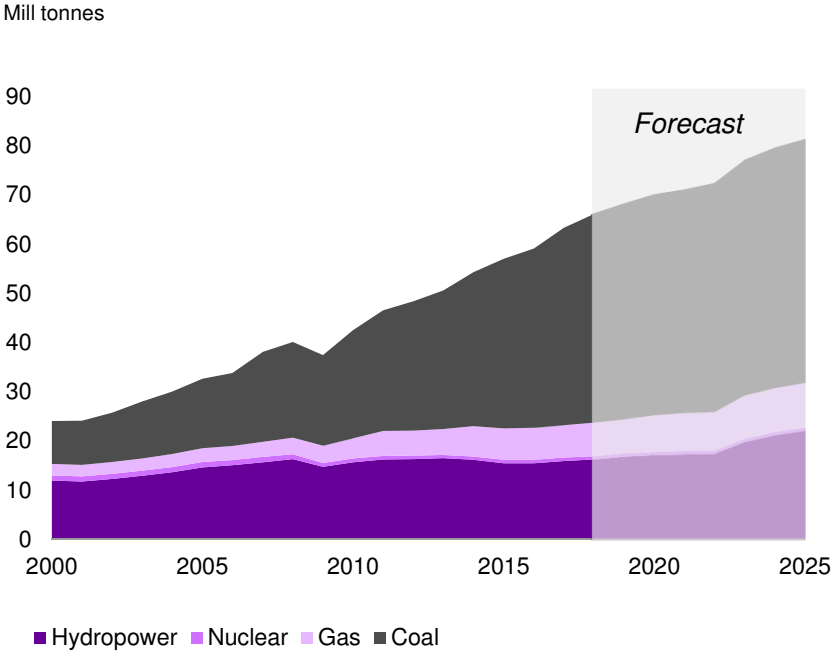
But global aluminium also illustrates the climate paradox

Increasing share of production is coal-based – produced where emissions are highest, *not* lowest

CO2 emissions and main energy source in aluminium production by country



Aluminium production by power source



Source: CRU

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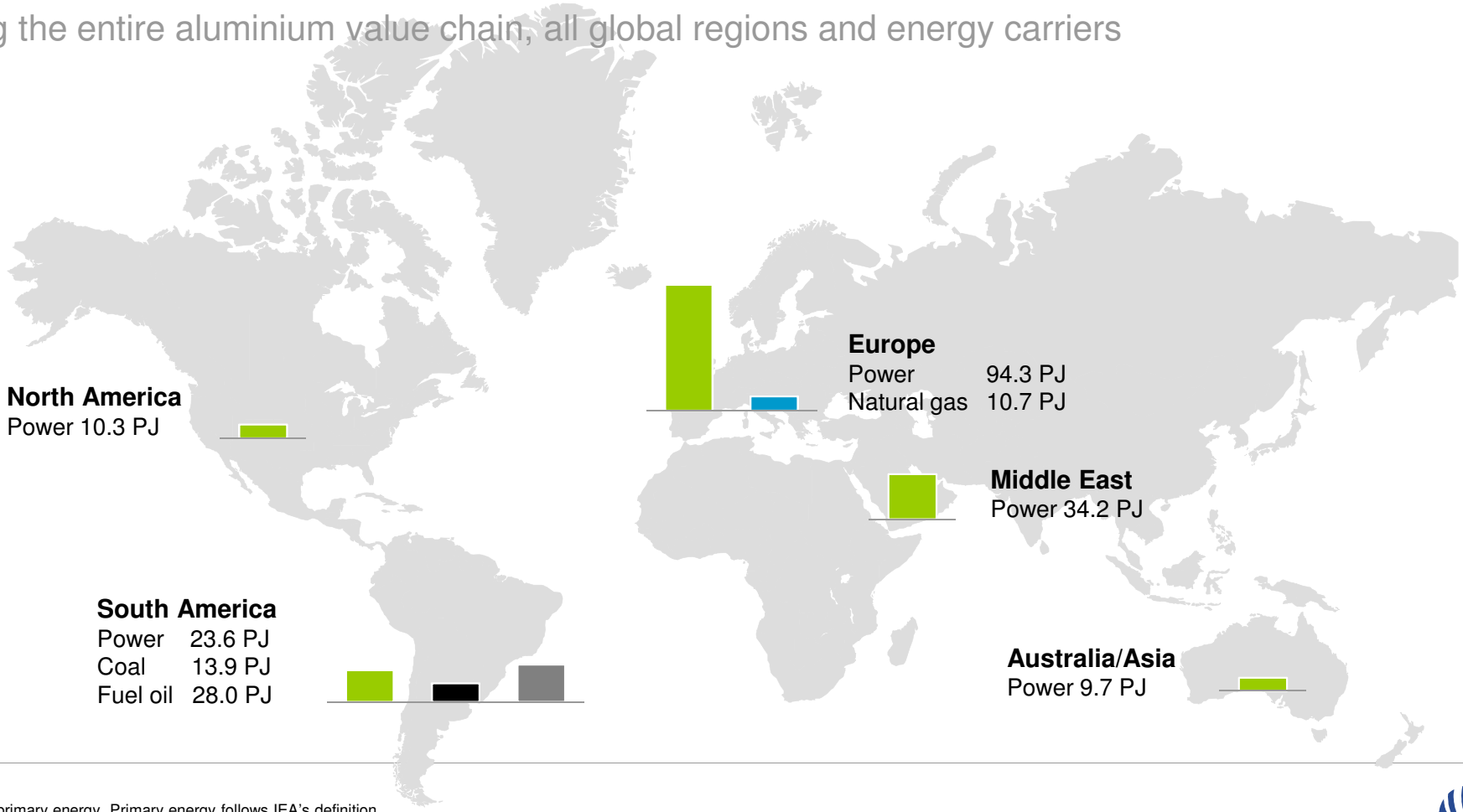
Hydro’s global
energy agenda

Hydro’s global primary energy demand

Spanning the entire aluminium value chain, all global regions and energy carriers



Values are in PJ of primary energy. Primary energy follows IEA’s definition

Based on equity-adjusted 2016 values for Norsk Hydro’s bauxite mines, alumina refineries, smelters, remelters and rolling mills. Extruded Solutions are not included.

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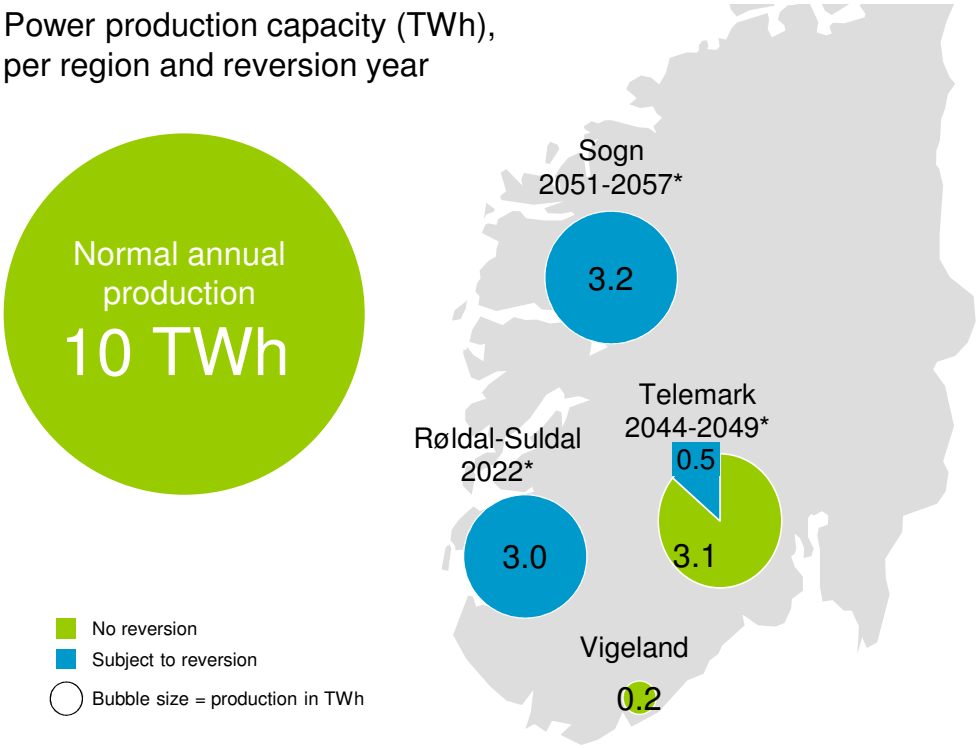
Hydro has captive hydropower production of around 10 TWh

Power production capacity (TWh), per region and reversion year



* Reversion year

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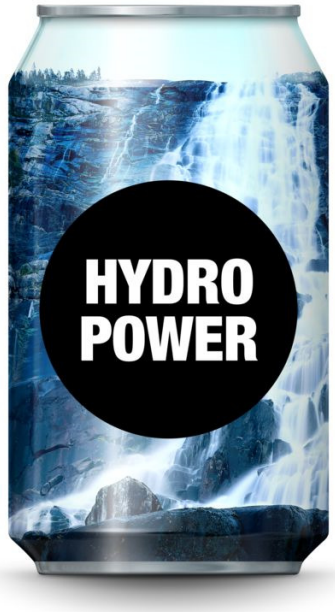
Energy as a global energy provider and center of excellence

Strong, sustainable value creator *and* energy provider throughout the value chain



To own, operate and maximize value of Hydro's energy assets

To provide competitive power sourcing and global energy competence

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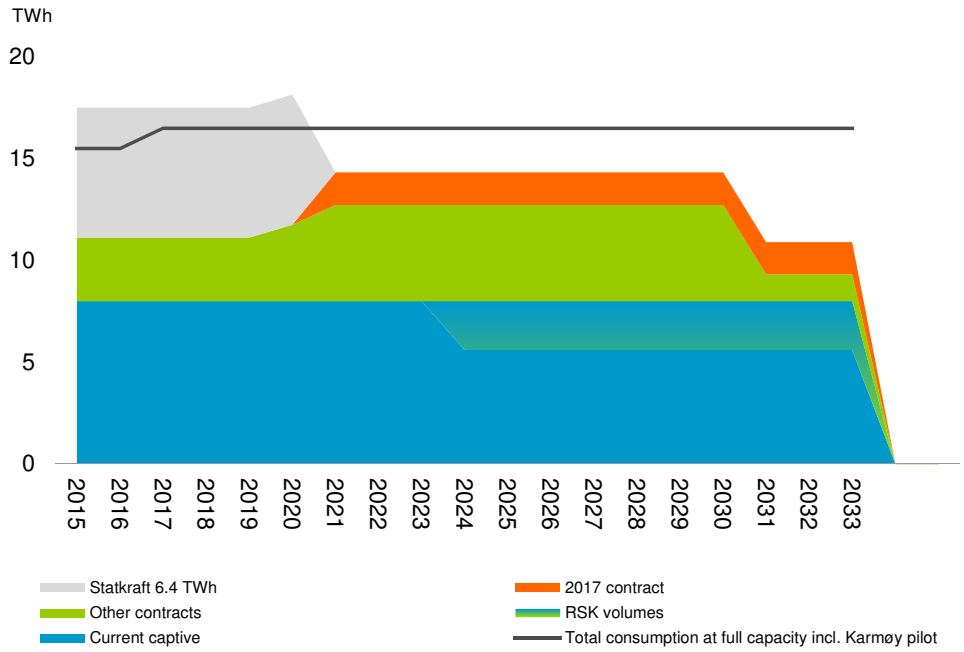
Securing long-term competitive power sourcing for smelter portfolio

6.4 TWh hydro and wind power contracts signed to source aluminium production in Norway beyond 2020

Sourcing platform for fully-owned smelters, Norway*



* Net 8 TWh captive assumed available for smelters

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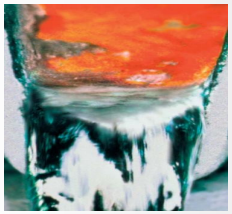
Transforming energy
into products and solutions
for a sustainable future

Our global industry's most ambitious climate strategy

Hydro on track to be carbon-neutral from a life-cycle perspective by 2020

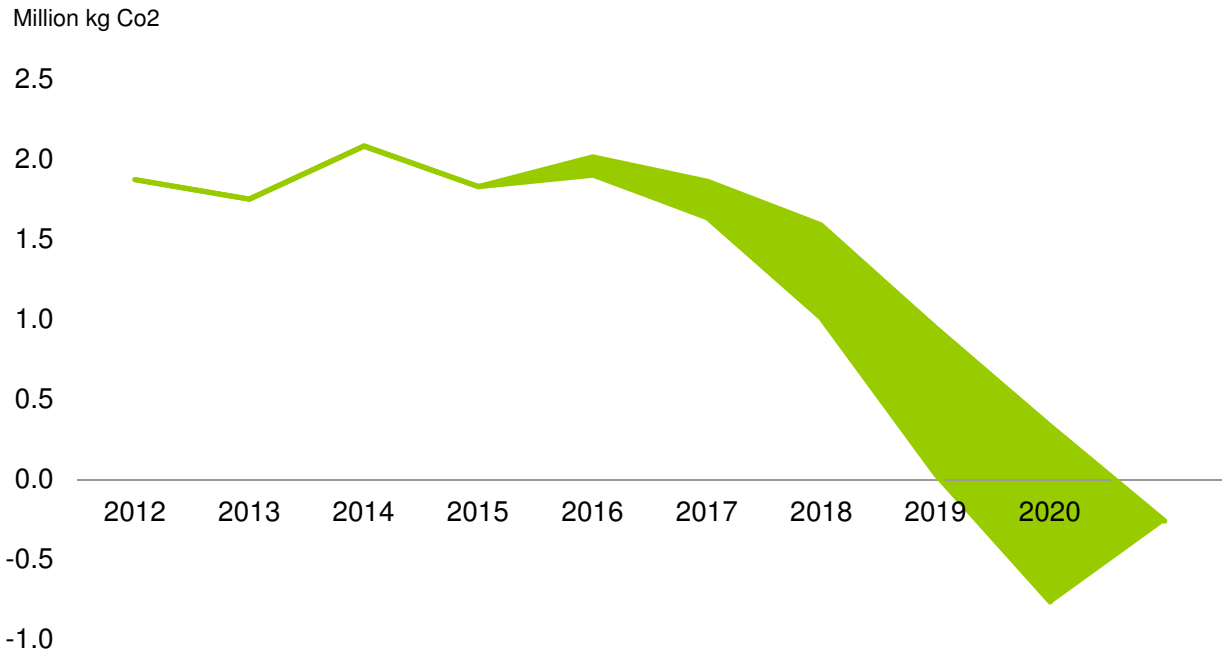
Production – reduction in own emissions

Products – use phase benefits



Recycling of post-consumer scrap

Hydro's CO2 emissions from a life-cycle perspective*



* Incl Extruded Solutions from 2018

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Part of the solution – turning words into action

Industrial strategy, business development and climate ambitions hand in hand

ZERO

2020

Carbon-neutral 2020
in a lifecycle perspective

Value-creating, climate friendly investments

Karmøy technology pilot

Primary Metal, Norway

Automotive line 3

Rolled Products, Germany

UBC recycling line

Rolled Products, Germany

Wind power sourcing

Energy, Norway

Fuel switch Project

Bauxite & Alumina, Brazil

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Utilizing aluminium’s use-phase benefits and recycling friendliness

Setting new standards
in environmentally friendly
and sustainable buildings.

Hydro Extruded Solutions to deliver
to the world’s first purpose-built,
mass-market electric taxi in London.

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Hydro’s climate strategy converted into low-carbon products

Our uniqueness is our integrated value chain, share of hydropower and post consumer scrap recycling

Hydro 4.0

All-in approach

Maximum or below
4.0 kg CO2e/kg Al

Verified according to
ISO 14064 by DNV GL

Hydro 75R

At least 75%
post-consumer
recycled aluminium

Verified by DNV GL based on
traceability and quality principles
developed by Hydro

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Combining high-value outputs with lower cost inputs

Repositioning Hydro's recycling activities, preparing for the circular economy

250 kmt
in post-consumer scrap recycling by 2020

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First metal from the Karmøy technology pilot

The world’s most energy and climate-efficient electrolysis technology

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